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Ameritech

James K. Smith
Director
Federal Relations

October 30, 1998

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, NW
Room 222
Washington, DC 20554

Re: **Ex Parte Filing**
CC Docket 95-116
RM 8535

Dear Ms. Salas:

On Thursday, October 29, 1998, Mike Suthers, Therese Lasswell and Roger Marshall of Ameritech and I met with the following members of the Competitive Pricing Division: Kris Monteith, Jay Atkinson, Lenworth Smith, Lloyd Collier, Rhonda Lien, Ana Curtis, Chris Barnekov, and Josephine Simmons. The purpose of the meeting was to discuss issues raised in Ameritech's comments filed August 3, 1998 and the Petition for Reconsideration and Clarification filed July 29, 1998. The attached material served as the basis for the discussion.

Sincerely,

Attachment
cc: K. Monteith (w/o attach.)
J. Atkinson (w/o attach.)
L. Smith (w/o attach.)
L. Collier (w/o attach.)
R. Lien (w/o attach.)
A. Curtis (w/o attach.)
B. Barnekov (w/o attach.)
J. Simmons (w/o attach.)

FORECAST INFORMATION

- Two methods of developing a forecast: with carrier input and using Ameritech data only
- Using carrier forecast information is the preferred method for determining the ratio between LNP retail and wholesale queries
- Impacts the percentage of cost allocated to the LNP Surcharge
- Carriers have been extremely reluctant to share information, forcing Ameritech to rely on internal data sources
- Commission should require carrier to provide complete and accurate forecast information or accept a forecast using Ameritech data only

LNP COST STUDY ASSUMPTIONS

- 11.25% Rate of Return
- 5 Year Recovery Period (1999-2003)
- Cost allocation based on query demand (95% retail / 5% wholesale)
- On-going expenses - (Product Management and Maintenance) calculated as perpetuities
- Interim number portability costs included
- Incremental overhead loading included
- Surcharge applies to Centrex loops using the current PBX trunk equivalency basis

LNP DIRECT COST ITEMS

- LNP Capital Investments, e.g., SCPs
- LNP Expenses, e.g., LRN Software
- Network Implementation Expenses
- Product Management Expenses (Wholesale and Retail)

OPERATIONS SUPPORT SYSTEMS COSTS

- *Costs for LNP features only*
- *Ordering*
- *Provisioning - including switch, triggers, code openings and number administration*
- *Maintenance*
- *Product specifications and contracts*

LNP INCREMENTAL OVERHEAD LOADING

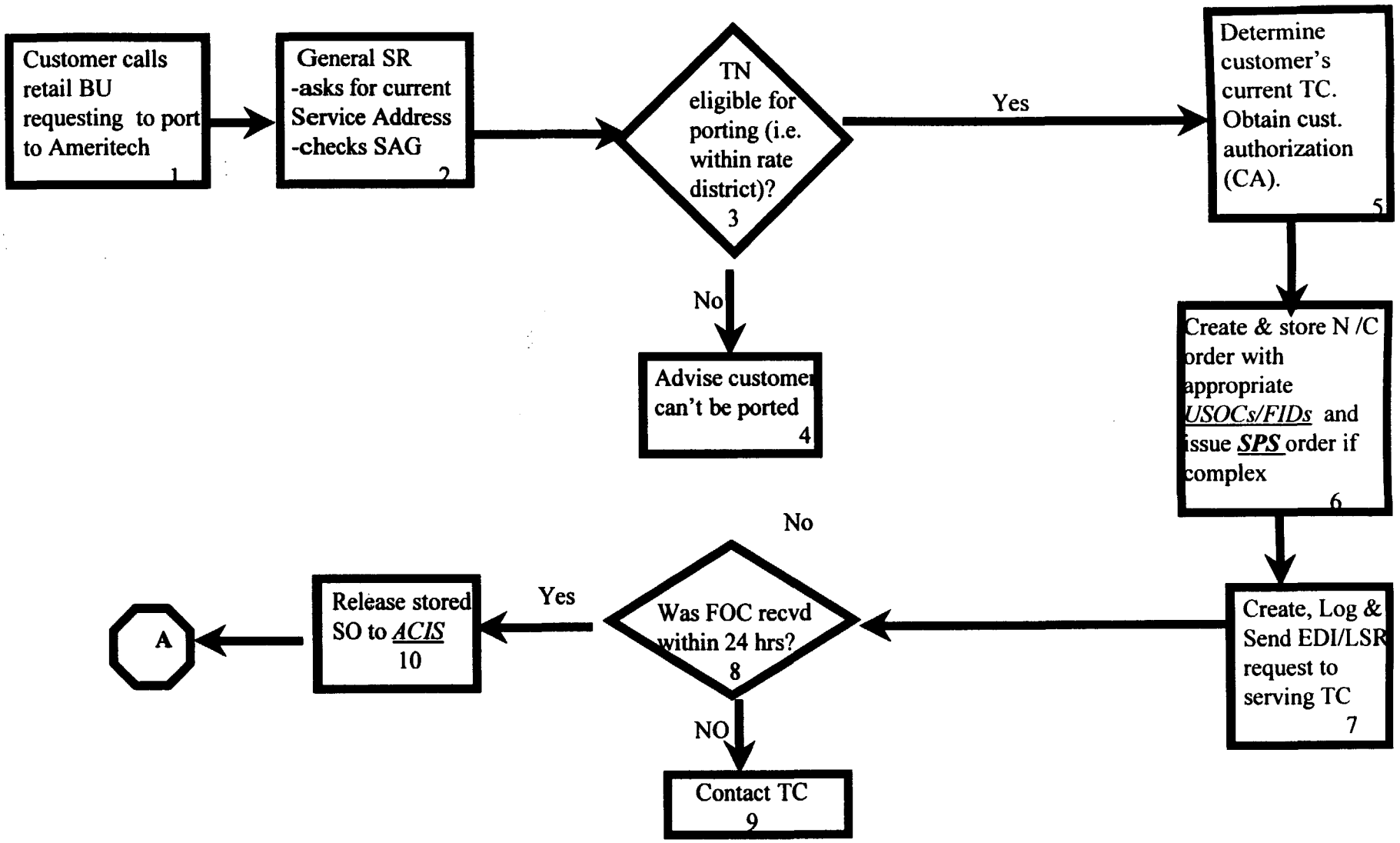
- Incremental overhead loading factor is appropriate for LNP Surcharge
  - Factor accounts for incremental costs of LNP which were not included in the Direct Cost Study
  - Retail Shared and Common Study was used as the basis
  - Work groups excluded from Direct Study and incremental to LNP were included
  - Included costs were divided by Extended LRSIC to determine factor
- LNP Query and Database Access should be treated like other services with respect to overhead loading

SURCHARGE APPLICATION

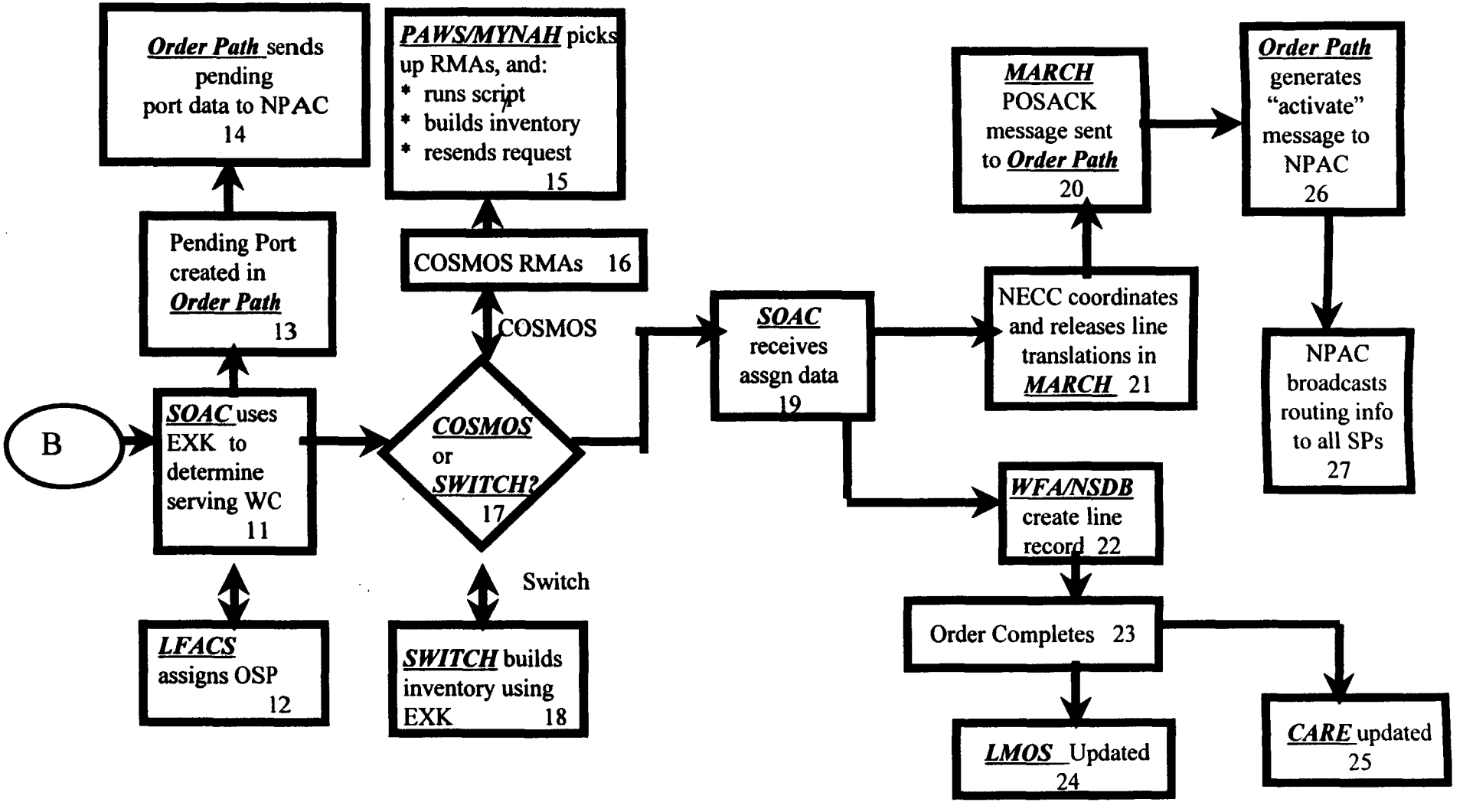
Surcharge Applies to the following Retail and Resale Line Types and Unbundled Line Side Ports

- Residence
- Business, including FX
- Centrex
- PBX
- ISDN-Direct
- Unbundled Switch Ports
- End User Feature Group A
- Coin
- ISDN - Prime
- DID
- COCOTS
- Type 1 Wireless

Port In Scenario



Port In - cont'd



Port In

This flow defines processes and impacts required by Ameritech to support the porting in of a customer into the Ameritech network from another Service Provider (SP)/ Telecommunications Carrier (TC).

BOX 2 -
Street Address Guide (SAG) modifications were required to reflect which end offices are LNP capable and also to identify which rate district an address is located in.

BOX 6 -
Ameritech Customer Information System (ACIS) is Ameritech's Service Order Processor (SOP) and Billing System. ACIS required changes to support service negotiation, issuance and billing processing, including:

- Identification of Ported NPA-NXXs
- identification of rate districts
- newly required USOCs/FIDs for identification of imported accounts

In addition, completed service order data is used to populate from ACIS to the LMOS data base for maintenance support.

Service Provisioning System (SPS) is an Ameritech internally developed system used for processing complex accounts e.g. Centrex, Multi-Line Hunt Groups, et al. SPS required upgrades to recognize ported accounts and integrate processing with the various complex account processing.

BOX 11,19 -
Service Order Analysis and Control (SOAC) is the system which parses appropriate service order data to facilitate service provisioning, activation, and maintenance. SOAC software was enhanced to parse and process new LNP FIDs and map the appropriate data into tags to send to impacted downstream operational support (OSSs). These OSSs are: MARCH, LFACS, COSMOS, SWITCH, NSDB, WFA system

BOX 13 & 14 -
Order Path (OP) is the new system required to support the uploading of data to the NPAC SMS. OP is the SOA interface to the NPAC. This interface is required for LNP.

BOX 15 -
PAWS/MYNAH are scripting programs used to support the processing and provisioning imported TNs for accounts served out of wire centers supported by the COSMOS system. PAWS/MYNAH generates exception reports for these accounts and builds the TN inventory in the appropriate wire center.

BOX 16 - 18
COSMOS and SWITCH inventory and assign telephone numbers (TNs) and switching equipment. Both systems required modifications to build the appropriate inventory of TNs when importing TNs foreign to a serving wire center.

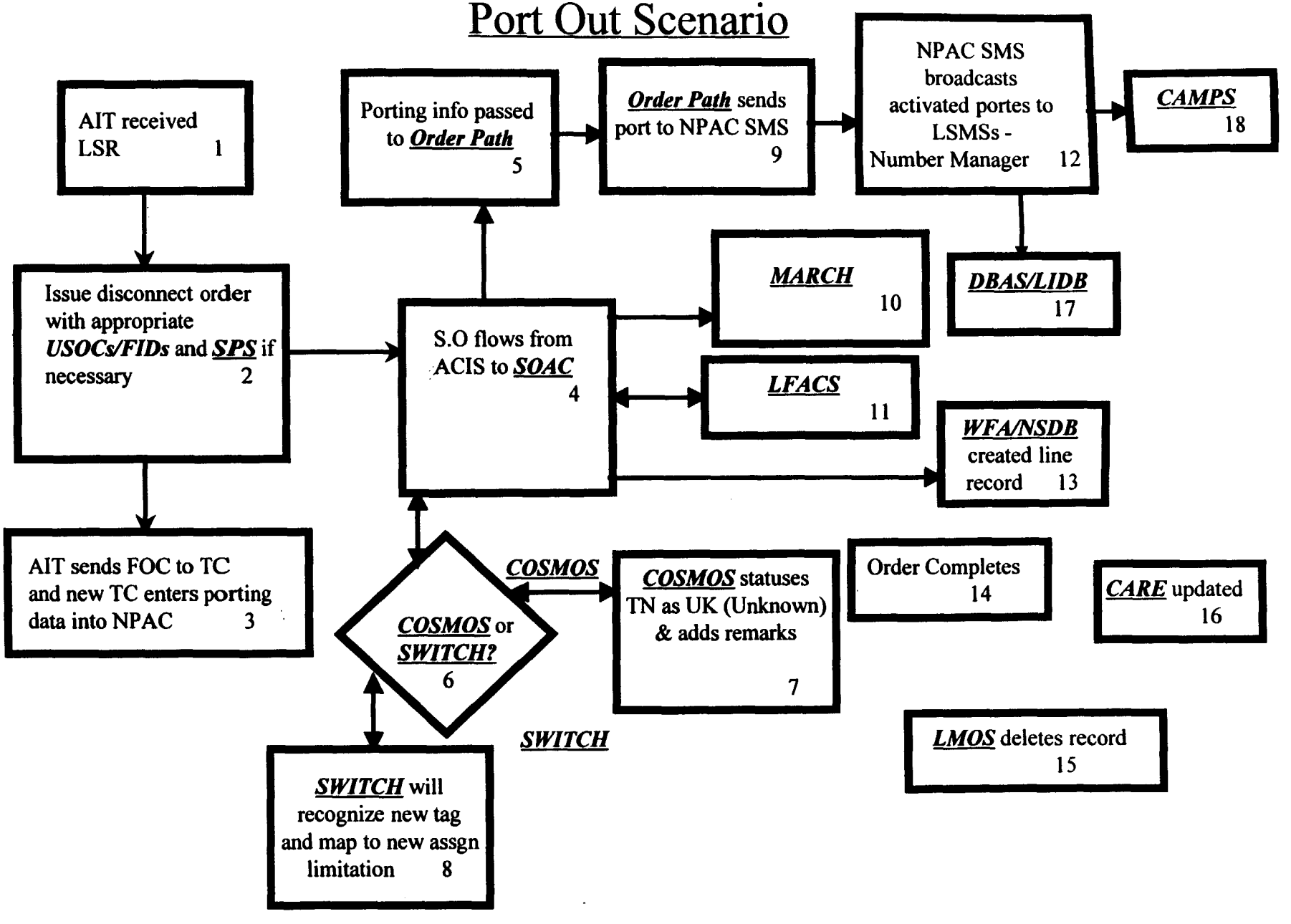
BOX 20 - 21 -
MARCH is the front end OSS which translates service order data into End Office Switch translation language. MARCH was modified to recognize and accept foreign TNs and translate to the appropriate serving switch language.

BOX 22 -
WFA/NSDB (Work Force Administration and Network Services Data Base) are maintenance support systems. These systems support installation and maintenance of special services, message trunks, carrier type circuits and POTS service. Modifications were required to these systems to recognize foreign TNs thru various USOCs/FIDs and process appropriate records.

BOX 24 -
Loop Maintenance Operating System (LMOS) is also a maintenance support system utilized within Ameritech. LMOS required significant upgrades to recognize imported TNs and process thru to Mechanized Loop Testing (MLT).

BOX 25 -
The CARE system tracks and administers all service order activity for PIC administration. Modifications were required to enable the ability to support the processing of foreign TNs now served by the Ameritech network.

Port Out Scenario



Port Out

This flow defines process and impacts required by Ameritech support the porting out of a customer to a different Service Provider (SP)/Telecommunications Provider (TC).

BOX 2 -
New ***Universal Service Order Codes (USOCs)*** and Field Idenitifiers (FIDs) were required to support service order issuance, provisioning and billing. ***Service Provisioning System (SPS)*** is an adjunct Ameritech system required to support service order issuance for more complex services (i.e., DID, CTX).

BOX 4 -
Ameritech Customer Information System (ACIS) is Ameritech's Service Order Processor (SOP) and Billing system. ***ACIS*** required changes to support service negotiation and billing processing, including:

- Identification of ported NPA-NXXs
- Identification of rate districts
- Newly required USOCs/FIDs for identification ported TNs

In addition completed service order data is used to populate from ACIS to the LMOS data base for maintenance support.

Service Order Analysis and Control (SOAC) is the system which parses appropriate service over data to facilitate service provisioning activation and maintenance. ***SOAC*** software was enhanced to parse and process new LNP FIDs and map the appropriate data into tags for impacted downstream operational support systems (OSSs). These OSSs are: ***MARCH, LFACS, COSMOS, SWITCH, NSDB, WFA.***

BOX 5 -
Order Path is the new system required to support uploading of data to the NPAC SMS. ***Order Path*** is the SOA interface to the NPAC. This interface is required for LNP.

BOX 6 - 8 -
COSMOS and ***SWITCH*** inventory and assign telephone numbers (TNs) and switching equipment. Both systems required modifications to ensure appropriate treatment of ported out TNs to avoid inadvertent assignment of ported TNs. In addition, enhancements were required to support snap back processes.

BOX 10 -
MARCH is the front end OSS which translates service order data into End Office Switch translation language. MARCH was modified to recognize LRN, port out indicator and 10 digit trigger provisioning.

BOX 11 -
Loop Facility Assignment Control System (LFACS) is the OSS which supports and administers outside plant facilities assignment and utilization. LFACS software was enhanced to support a flexible disconnect policy for ported out TNs.

BOX 12 -
Number Manager is a new system required to support the download of ported routing data and associated administrative messages. Number Manager is the LSMS interface to the NPAC. This interface is required for LNP and to provision network elements for routing of calls.

BOX 13 -
Work Force Administration (WFA) and Network Servies Data Base (NSDB) are maintenance support systems. These systems support installation and maintenance of special services, message trunks, carrier type circuits and POTS servie. Modifications to these systems were required to recognize and process porting FIDs.

BOX 15 -
Loop Maintenance Operating System (LMOS) is a maintenance support system utilized within Ameritech. LMOS required enhancements to recognize LNP FIDs to properly identify ported out numbers.

BOX 16 -
The ***CARE*** system tracks and administers all service order activity for PIC administration. Modifications were required to properly identify carriers when TNs have been ported out from Ameritech.

BOX 17 -
Database Administrative System (DBAS)/Line Information Database (LIDB) support on line validation of calling card, collect and bill-to-third-party calls. DBAS/LIDB process appropriate billing information to the customer's telephone company. LNP required enhancements to process Service Provider Identification (SPID) to enable proper billing for these call types.

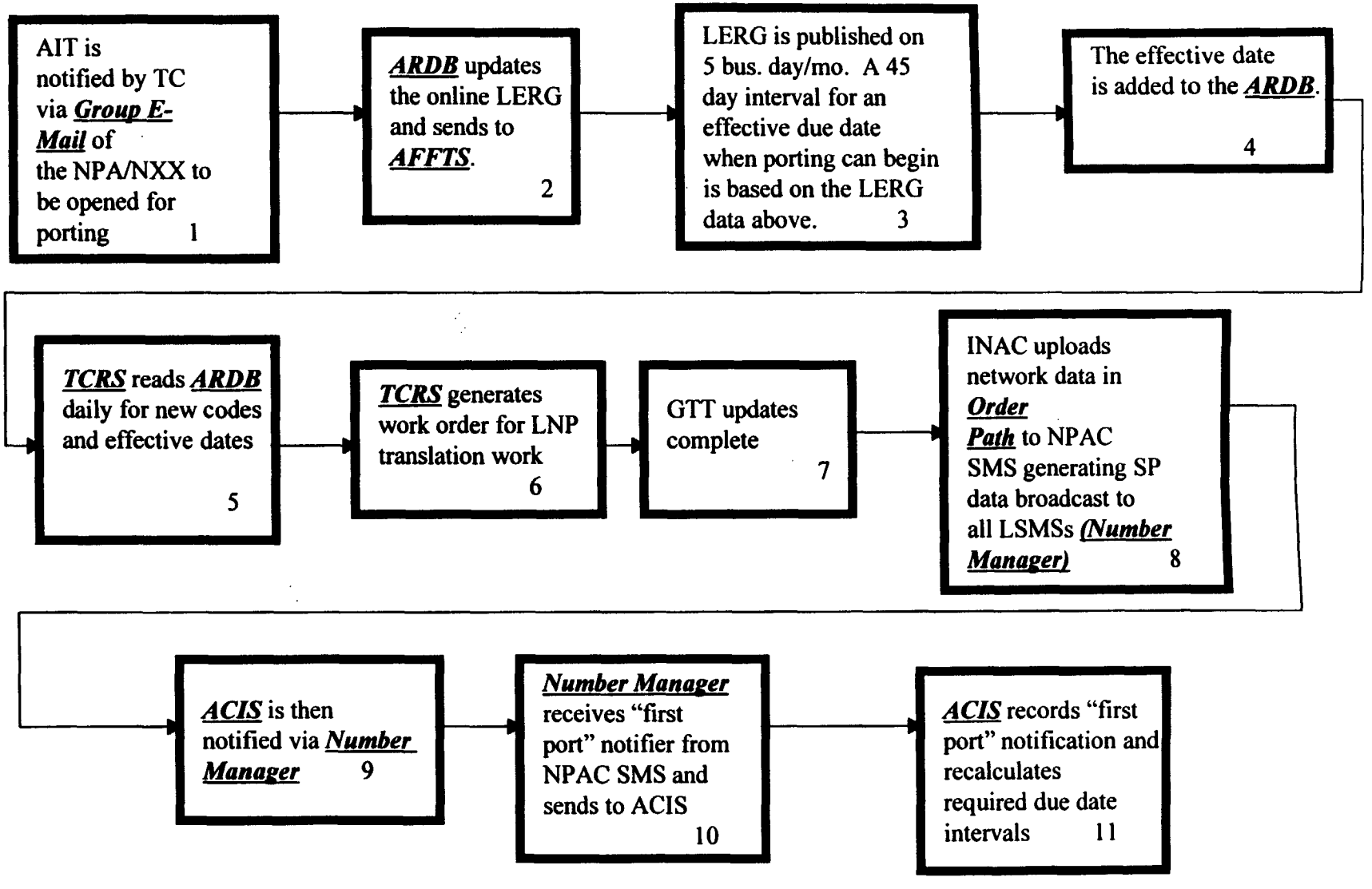
BOX 18 -
CAMPS is a billing subsystem that supports message distribution and revenue settlement processes. Modifications were required to enable SPID processing for originating, terminating and billing numbers for the above billing processing.

ADDITIONAL NOTES:

To enable COSMOS functionality, additional processing support was required through a scripting program -- MYNAH provide a safety net ensuring no duplicate TN assignment, supporting snap back and provisioning of DID and non-dial tone TNs.

Enhanced Mechanized and Control System (EMAC) is the service order provisioning and service activition system utilized in Wisconsin. ***EMAC*** is unable to support mechanized processing of LNP orders, and will be converted to SOAC/SWITCH to enable LNP support.

LNP Code Opening Scenario



Code Openings

BOX 1 -
Ameritech requires notification from Service providers when they are requesting NPA-NXXs be opened for porting. To facilitate this process, Ameritech developed a ***"Group E-Mail"***.

BOX 2 & 4 -
Ameritech Routing Data Base (ARDB) is Ameritech's interface to the LERG. ARDB sends and receives porting data to the LERG. ***Ameritech Feature & Functionality Tracking System (AFFTS)*** tracks end office features and functionalities. This system feeds into the front end Service Order Negotiation system enabling service representatives to properly issue service orders. Modifications were required to identify LNP capable offices, rate districts, and due date intervals.

BOX 5 & 6 -
Translation Change Record System (TCRS) generates work orders for office translation work in tandem and end office switches Modifications were required to support opening NPA-NXXs for portability and setting triggers. In addition TCRS originates and tracks work orders for required Global Title Translations.

BOX 8 -
Order Path is a new system required to support uploading of data to the NPAC SMS. ***Order Path*** is the SOA interface to the NPAC. This interface is required for LNP.
Number Manager is a system required to support the download of ported routing data and associated administrative messages. Number Manager is the LSMS interface to the NPAC. This interface is required for LNP and to provision network elements for routing of calls.

BOX 9 - 11 -
Customized functionality was added to the vendor's Number Manager product to process data to the front end Service Order Negotiation system in ACIS. ***Ameritech Customer Information System (ACIS)*** is Ameritech's Service Order Processor (SOP) and Billing system. ***ACIS*** required changes to support service negotiation.

OSS Modifications Required for LNP

Attachment to Appendix G

OSS System Name	Function	System Function	Modifications Required	Reason for Modification
Legend:	B- Billing			
	N- Network Routing			
	P- Provisioning			
	R- Repair & Maintainence			
Predictor	R	Mechanized means of identifying cable pair associated with each Directory Number (DN). Also provides real-time verification of CO-based features associated with each DN.	New G13/LNP software, G10/G11 Operating software, 5 (new) HP mid-range servers.	Predictor was incapable of accepting the new LNP information (LRN and Exchange Key). Vital information on numbers imported into Ameritech's network would be blocked.
CARE	B	Database of ACIS records that identifies what Primary Interexchange Carrier (PIC), is associated with a line.	New software.	Added the capability to handle non-Ameritech telephone numbers (port in), and to retain numbers that port out of Ameritech.
COSMOS	P	Inventories and assigns Telephone Numbers (TNs) and switching equipment.	Conversion to SWITCH/FOMS preparation costs.	COSMOS was unable to support LNP functionality, to appropriately status ported out TNs and to expand the TN inventory to add imported TNs. COSMOS is a legacy System.
DSF/FACS	P	Dual Standard Operating Environment Facility Assignment and Control System provides a mechanized process of service provisioning for local loop facilities and integration to other provisioning and operations systems.	Replacement of software for provisioning outside plant facilities. IS/IGS Hardware, Bellcore conversion analysis and mapping requirements from EMAC to DSF/FACS as well as code development.	DSF requires a modification to accept a new interface from ACIS required by LNP to process and pass LNP service order requests to the Order Path application (see below).
DBAS II	N	Data Base Administration System. Updates the LIDB database with calling card, and bill to third party validation information.	Software changes to identify facility based provider of specific TN.	LIDBs (Line Information DataBases) needs an additional field to store information on carrier ID. Required where numbers maybe ported for validating the calling card number.

OSS Modifications Required for LNP

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OSS System Name	Function	System Function	Modifications Required	Reason for Modification
EMAC	P	Enhanced Mechanized Assignment and Control system, inventories and assigns inside and outside plant facilities (for Wisconsin Only)	Conversion to SWITCH/FOMS.	EMAC was unable to support LNP functionality because it could not recognize the appropriate USOCs & FIDs for LNP provisioning. EMAC must be replaced with the FACS provisioning systems (SOAC, LFACS & SWITCH) which enable the provisioning of LNP.
LIDB	N	Line Information Data Base. Keeps calling card and third party billing information.	Add new field to identify the billing service provider associated with each number	LIDB was upgraded to house and interpret new information required for validation and billing to identify TN ownership in a portability enviornment at the line level.
IBM Global Services		(OSS Hardware maintenance contractor).	Contract cost increases associated with LNP to lease and maintain additional hardware and monitor LNP communication links	Additional support/monitoring for new LNP hardware and communication links added to support LNP query traffic.
LMOS/MLT	R	Stores line record information (office equipment, cable pair, serving CO, class of service, features, etc.) by telephone number. Repair centers issue trouble reports via LMOS, which also keeps a history and tracks repair status.	Upgrade to application software	Modifications required to enable LMOS/MLT to recognize Exchange Key data to determine the appropriate serving office, since NPA-NXX tracking is no longer valid in an LNP environment.
Net Pilot	N	Extracts and steers global title translation information downloaded from the NPAC.	New OSS for the SS7 Signaling Network. Allows a multi-vendor CCS SS7 network to route calls correctly.	Software package required to perform LNP related Global Title Translations (GTT) on Signaling Transfer Point (STP) platforms.
NPAC	N	Neutral 3rd Party Porting Database	New System to track ported numbers.	Required 3rd Party system that broadcasts and stores LNP data for the industry.

OSS Modifications Required for LNP

Attachment to Appendix G

OSS System Name	Function	System Function	Modifications Required	Reason for Modification
NSDB	R	Maintenance support database for trunks and special service circuits. Provides information for each circuit on order activity, associated facilities, billing and services. Linked to WFA/C (see below).	Add new screen for database administration associated with Ported out TN database. Allows creation and/or deletion of records and enables appropriate fields to be added and/or updated.	Enables maintenance support personnel to recognize LNP circuits during trouble resolution.
Number Manager	N	Receives LNP data downloads from the NPAC SMS for network routing data, and broadcasts it to Ameritech's CSMS/SCP ("Classic" Service Management System/Switching Control Point).	New System to interface the NPAC with Ameritech's CSMS.	Enables appropriate network routing of calls to ported numbers to facilitate implementation of LRN technology.
Order Path	N	Service Order Administration System linked to the NPAC SMS. Enables the processing of Ameritech's service orders, broadcasts them to the NPAC to coordinate porting activity, and performs other administrative functions.	New System to process Ameritech's LNP Service Orders.	This system is required to post porting activity to the NPAC SMS database.
SWITCH/FOMS	P	Inventories and assigns inside plant facilities. This is Ameritech's Telephone Number Inventory Database.	Interface between SWITCH and SOAC to broadcast orders.	Permits the SWITCH system to indicate, track, and inventory ported telephone numbers, providing the ability to add imported TNs to the inventory and indicate ported out TNs, avoiding double assignment of TNs.
SOAC	N	Service Order Analysis and Control system receives service orders and broadcasts them to the NPAC to coordinate porting activity.	New tables and coding. Also new interface for SOA.	Required to recognize and parse LNP data for downstream Operations Support Systems.

OSS Modifications Required for LNP

Attachment to Appendix G

OSS System Name	Function	System Function	Modifications Required	Reason for Modification
WFA/C, WFA/DI	R	Work Force Administration and dispatch Databases. Used to issue trouble tickets for inside central office forces (WFA/DI) and outside special services (WFA/C). Tracks repair progress and maintains trouble history.	The enhancement of WFA/C Maintenance interface to retrieve and pass LNP indicators. Modifications of WFA/DI maintenance interface to receive and process new porting indicators.	Permits maintenance support personnel to recognize LNP circuits during trouble resolution.
MARCH	P	Mechanized translations interface from SOAC to input TN line translations directly into switch platforms.	New LNP fields interpreted from Service Order on a 10 Digit basis	Provides the capability to receive new LNP translations and FIDS (Field Identifiers).
911 LNP	N	Emergency Services Database	Adds LNP field identifiers and PSAP designations.	LNP required modifications to identify the proper serving TC. New fields were required to reflect the SPID (Service Provider ID).
MYNAH/PAWS	P	Distribution system for service orders that require manual assistance.	New LNP scripting program to identify LNP orders and alert affected work centers to their presence.	Some systems are unable to trigger LNP exception order processing. These include COSMOS and SPS. This system intervenes for LNP provisioning processing and emulates manual processes to enable mechanization.
Link Monitoring	R	Provides the ability to collect and present a complete record of all SS7 messages associated with a call. Used for detection of SS7 Network problems before they become service affecting, and for query/response tracking.	Adds additional monitoring points, real-time Remote Access from a Centralized location, data base dip monitoring, and time stamp capability. Provides SS7 network congestion monitoring, call volumes and usage pattern analysis.	Because call set messages up go to many more places, additional points within the SS7 network must be monitored in a mechanized fashion.